

SPECIFICATION AMENDMENTS

At page 1, line 1, please insert the following:

This application claims priority from U.S. Provisional Patent Application Serial No. 60/253,382, filed November 27, 2000, the entire contents of which are incorporated herein by reference.

Please replace the paragraph beginning at page 4, line 5, as follows:

Another type of nucleic acid hybridization probe assay utilizing a FRET pair is the ~~TaqMan®~~ TAQMAN® assay described in Gelfand et al. U.S. Pat. No. 5,210,015, and Livak et al. U.S. Pat. No. 5,538,848. The probe is a single-stranded oligonucleotide labeled with a FRET pair. In a ~~TaqMan®~~ TAQMAN® assay, a DNA polymerase releases single or multiple nucleotides by cleavage of the oligonucleotide probe when it is hybridized to a target strand. That release provides a way to separate the quencher label and the fluorophore label of the FRET pair. According to Livak et al. "straightening" of an end-labeled ~~TaqMan®~~ TAQMAN® probe also reduces quenching.

Please replace the brackets with parentheses in the paragraph bridging pages 25 and 26 as follows:

Cleavage by the various agents investigated was compared. A direct correlation of the turnover ($V_{app} / \{(\text{cleavage agent})\}$) for calicheamicin, esperamicin, bleomycin, MPE, and Fe^{+2} -EDTA indicates the maximum turnover when $\{(\text{molecular break light A (FIG. 2B)})\} = 3.2 \text{ nM}$ (representing at least 76.8 nM cleavage sites) occurs in the range of 0.78- 1.6 nM for the enediynes, 2.5 nM for bleomycin and 125 nM for MPE. At the higher molecular break light concentration, $\{(A)\} = 32 \text{ nM}$, maximum turnover occurs in the range of 50 nM MPE and 1.3 μM Fe^{+2} -EDTA. These maximum turnover values are summarized in Table 1 to correlate the cleavage efficiencies of this highly diverse group

of DNA cleavage agents where MPE, assayed at both concentrations of oligonucleotide, serves as the common agent in both sets.

Please replace the brackets with parentheses in the paragraph bridging pages 28 and 29 as follows:

FIG. 3A reveals a time dependent and $\{BamHI\}$ -dependent increase of fluorescence only with B; A incubated with *BamHI* shows no change at 37 °C. **FIG. 3B** illustrates a $\{DNaseI\}$ -dependent increase of fluorescence over time both when break light A is incubated with DNase and when break light B is incubated with DNase.

Please replace the brackets with parentheses in the following paragraph on page 29:

$$V_{act} = V_{obs} (\{S_{act}\} / \{S^*\})$$

Please replace the brackets with parentheses in the following paragraph on page 29:

$\{Equation 1\}$

Please replace the brackets with parentheses in the following paragraph on page 31:

Pseudo-first order kinetic parameters were utilized to determine the initial velocities at each given enediyne concentration. Specifically, graphical representation of the data was based upon equation 2 where $\{A\}_t$ is the concentration of cleaved oligonucleotide at a given time (t) and $\{A\}_0$ is the initial concentration of oligonucleotide in the assay. Least squares analysis gave the slope (k), or rate, which was converted to V by the relationship in equation 3. The maximum velocity achieved (V_{max}) was then selected from the range of concentrations examined.

$$\ln\{A\}_t = -kt + \ln\{A\}_0$$

$\{Equation 2\}$

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$$V = k[A]_0$$

{(Equation 3)}